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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,202	12/10/2003	Martin M. Liphardt		4605

7590 12/15/2005
JAMES D. WELCH
10328 PINEHURST AVE.
OMAHA, NE 68124

EXAMINER

MERLINO, AMANDA H

ART UNIT PAPER NUMBER

2877

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/731,202

Applicant(s)

LIPHARDT ET AL.

Examiner

Amanda H. Merlino

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/10/03</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Objections

Claims 1-2 objected to because of the following informalities: in claims 1-2, the variable θ' is not defined in the claims. All variables need to be defined in the claims even though they are defined in the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 rejected under 35 U.S.C. 103(a) as being unpatentable over Obenreder (3,857,637).

Obenreder teach of a method of investigating a sample in accordance with figure 3 which comprises a substrate (21) with a thin film coating (col 4; lines 41) with a beam of electromagnetic radiation (17) which impinges at an oblique angle of incident (col 3; lines 8-10), said method eliminating the effects of reflection from the backside of said substrate (21) (col 4; lines 23-29) by placing a shield having a hole upon the surface of the substrate wherein the incident beam (17) reflects from the surface of the substrate (17), said reflected beam having no component therein which reflected from the backside of said substrate (17) and further comprising the step of analyzing the reflected beam. Obenreder also teaches that it is well known in the art that a beam striking a surface is reflected from the top surface and from the opposed surface thereto

and that the distance between the reflected beam from the opposed surfaces depends on the angle of incident, the index of refraction of the glass and the thickness of the glass (col 4; lines 11-18).

Obenreder et al lacks the teaching of the effective radius of the hole on the shield being of a specific value as shown by the equation $D \leq 2T \tan(\theta')$.

At the time of the invention, it would have been obvious to one of ordinary skill in the art that even though Obenreder does not directly state the equation to calculate the effective radius of the hole on the shield, Obenreder is inherently using the equation by calculating the effective radius using trigonometry since he does teach that all the variables of the equation (angle of incident, index of the refraction of the substrate, the thickness of the substrate etc..) are needed to calculate the effective radius of the hole on the shield to block the reflections from the backside of the substrate. Examiner notes that the even though the equation is not specifically shown by Obenreder, it is inherent that Obenreder is calculating the effective radius of the hold on the shield to block the reflection from the backside of the substrate.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

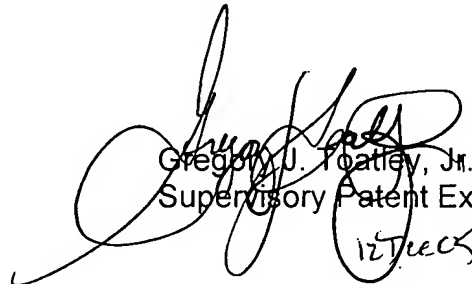
Chandley (5,298,974) teach of a shield with a hole (figure 2) to block backside reflections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda H Merlino whose telephone number is 571-272-2421. The examiner can normally be reached on Monday and Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J Toatley, Jr. can be reached on 571-272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Amanda H Merlino *ahm*
Patent Examiner
Art Unit 2877
December 8, 2005


Gregory J. Toatley, Jr.
Supervisory Patent Examiner
12 Dec 05